

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Amendment of the Commission's
Rules to Establish New Personal
Communications Services

GEN Docket No. 90-314
ET Docket No. 92-100

ORIGINAL

COMMENTS OF NORTHERN TELECOM
ON THE WINFORUM SUBMISSION

Northern Telecom Inc. ("Northern Telecom") hereby comments on the late-filed submission of the Wireless Information Networks Forum ("WINForum"). WINForum is an alliance of companies interested in developing rules for unlicensed, user provided voice and data personal communications services ("PCS"), and Northern Telecom has been an active member of WINForum. The WINForum submission describes a Spectrum Etiquette for unlicensed PCS that is intended to allow a wide range of applications and devices to access the spectrum to be allocated by the Commission.

Northern Telecom has been very actively involved in the development of unlicensed PCS. Northern Telecom is conducting several tests of unlicensed PCS equipment under experimental licenses issued by the Commission, and has been a participant in the various PCS proceedings before the FCC. Northern Telecom has

activities of WINForum and WINTech, the working technical subcommittee of WINForum.

As Northern Telecom stated in previous filings at the Commission, use of the services in the unlicensed PCS bands for both residential and commercial applications should comprise the initial PCS offerings, and thereby serve as an important catalyst to drive the widespread deployment of PCS. Northern Telecom has indicated that successful development of unlicensed PCS is dependent on an adequate allocation of spectrum, as well as the development of the necessary rules for use of that spectrum. In order to help meet these latter needs, Northern Telecom in its comments proffered proposals for common air interfaces and a spectrum management methodology. The WINForum spectrum etiquette is a similar, related proposal that will allow productive use to be made of the unlicensed PCS spectrum by different types of services through the specification of access rules.

Northern Telecom supports the concept of the necessary etiquettes and standards being developed by the industry, rather than being imposed by the Commission. Northern Telecom intends to continue its active participation in those activities, including the efforts of WINForum and WINTech. Northern Telecom believes that WINTech has made a strong effort to date in developing a spectrum etiquette. As the WINForum Submission recognizes, however, the efforts are not yet complete, and the Submission is still a "work in progress." WINForum Submission at p. 3.

Northern Telecom believes that at this stage of the development of a spectrum etiquette, it would be useful for the Commission to participate somewhat more actively in the process. Northern Telecom suggests that the Commission should consider having technical staff from the Office Engineering and Technology attend the working sessions of WINTech. Such Commission input would be particularly helpful in developing test specifications used to certify compliance with the etiquette.

Fully developing a spectrum etiquette for unlicensed PCS has not been an easy task. The etiquette must accommodate a wide range of differing services, including voice, narrowband data and wideband data, all in a single band. The etiquette must also be neutral, and not favor any one manufacturer or service.

Some significant issues are still not resolved.

Specifically, the etiquette must include the following:

- ° A mechanism to enable narrow-band and wide-band devices fair access to the available spectrum in a co-existence environment. This requires rules to govern the spectrum selection and allocation to maximize usage of the available spectrum and minimize the inefficiencies caused by fragmentation of spectrum.
- ° Effective rules governing in-band and out-of-band emissions.
- ° Spectrum access criteria that reflect the different services and functions that can be provided by the asynchronous and isochronous transmission methods. This includes, for example, the threshold at which the ~~detected power~~ in a section of spectrum would permit

unsuitable environment in which, for example, multi-channel devices and two-way (duplex) transmissions may not be operated.

In sum, Northern Telecom believes that to date, WINForum has made a great deal of progress in developing a spectrum etiquette for unlicensed PCS. The WINForum Submission captures those efforts, and provides a good foundation for the full development of the necessary industry etiquette. However, before this etiquette can be considered complete, the above issues must be resolved. Northern Telecom reaffirms its commitment to working with WINForum and WINTech in completing this task, and urges the Commission to support those activities. Furthermore, Northern Telecom is optimistic that these issues will be settled before completion of the reply comment cycle.

Respectfully submitted,